

### REMARKS

The Office Action of October 20, 2004, and the subsequent Notice of Non-Responsive Amendment dated April 22, 2005, have been received and reviewed.

Claims 1, 3-25, 28-35, 53, and 54 are currently pending in the above-referenced application. Claims 9, 24, and 29 have been withdrawn from consideration. Claims 1, 3-8, 10-23, 25, 28, 30-35, 53, and 54, which have been considered, stand rejected.

Claim 4 has been canceled without prejudice or disclaimer.

Reconsideration of the above-referenced application is respectfully requested.

### Remarks Regarding Notice of Non-Compliant Amendment

The Notice of Non-Compliant Amendment dated August 8, 2005, indicates that, although claims 1, 3, 5-11, 13-25, and 28-35 were identified as being "Currently amended," no markings were included to show the amendments to these claims. The status identifiers were improper, and have been replaced with "Previously presented," as no revisions were made to any of claims 1, 3, 5-11, 13-25, and 28-35 in the Amendment dated May 26, 2005.

### Objections Under 37 C.F.R. 1.75(c)

Claims 4 and 25 (which was misidentified in the Notice of Non-Responsive Amendment of April 22, 2005, as claim 35) have been objected to for failing to further limit the subject matter recited in a previous claim.

Claim 4 has been canceled without prejudice or disclaimer, rendering moot the objection thereto.

Claim 25 depends indirectly from claim 18. Claim 25 differs in scope from claim 18 and claims 22 and 23, from which it also depends, because claim 25 requires that *more than one* discrete spacer be in communication with a ground or reference voltage plane of a first semiconductor device, while claim 18 merely requires that *at least one* discrete spacer be in communication with the ground or reference voltage plane of the first semiconductor device. Thus, claim 25 differs in scope from each of claims 18, 22, and 23.

Withdrawal of the 37 C.F.R. 1.75(c) objections to claims 4 and 25 is respectfully requested.

### **Rejections Under 35 U.S.C. § 102**

Claims 18-21, 30, 31, 33-35, and 54 are rejected under 35 U.S.C. § 102(e) for reciting subject matter which is purportedly anticipated by the subject matter described in U.S. Patent 6,437,449 to Foster (hereinafter “Foster”).

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single reference which qualifies as prior art under 35 U.S.C. § 102. *Verdegaal Brothers v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Independent claim 18 is directed to a semiconductor device assembly that includes a substrate, a first semiconductor device, a second semiconductor device, and spacers between the first and second semiconductor devices. The spacers, which protrude from a surface of the first semiconductor device, are “mutually laterally spaced” and “discrete” from one another. They communicate with a ground or reference voltage plane of the first semiconductor device, and with a back side of the second semiconductor device.

The semiconductor device assemblies that are disclosed in Foster do not include mutually laterally spaced, discrete spacers, as required by independent claim 18. Rather, each assembly in Foster includes a single spacer 116, 216. *See* FIGs. 1 and 3.

Moreover, an adhesive layer 121, 221 that secures a spacer 116, 216 of an assembly of Foster to an active surface of an underlying semiconductor device 108 is configured to electrically isolate the spacer 116, 216 from the semiconductor device 108. Col. 3, lines 41-51. Thus, none of the assemblies described in Foster includes a spacer 116, 216 that communicates with a ground plane of the semiconductor device 108 from which it protrudes, as is required by independent claim 18.

For these reasons, it is respectfully submitted that Foster does not anticipate each and every element of independent claim 18, as would be required to maintain the 35 U.S.C. § 102(e) rejection of independent claim 18.

Each of claims 19-21, 30, 31, 33-35, and 54 is allowable, among other reasons, for depending directly or indirectly from claim 18, which is allowable.

Claim 33 is further allowable because Foster includes no express or inherent description of a semiconductor device assembly that includes three or more semiconductor devices.

Claim 54 is additionally allowable since Foster neither expressly nor inherently describes a semiconductor device assembly with at least one spacer that is secured to a contact pad of a semiconductor device. To the contrary, Foster explains that the spacer 116, 216 of a semiconductor device assembly may not be positioned over a bond pad 112 of a semiconductor device 108. Instead, the spacers 116 and 216 are configured to have an outer periphery which is smaller than the inner periphery of a bond pad 112 arrangement of the semiconductor device 108 so that the spacers 116 and 216 may be located within the inner periphery of the bond pads 112 and, thus, do not cover the bond pads 112. Col. 3, lines 38-51.

For these reasons, withdrawal of the 35 U.S.C. § 102(e) rejections of claims 18-21, 30, 31, 33-35, and 54 is respectfully solicited.

**Rejections Under 35 U.S.C. § 103(a)**

Claims 1, 3-8, 10, 12-17, and 53 are rejected under 35 U.S.C. § 103(a) for reciting subject matter which is assertedly unpatentable over that taught in U.S. Patent 6,593,662 to Pu et al. (hereinafter “Pu”), in view of conventional art, as disclosed in U.S. Publication 2003/0038353 to Derderian (hereinafter “Derderian”).

Claims 1, 3-8 and 10-16 stand rejected under 35 U.S.C. § 103(a) for reciting subject matter which is allegedly unpatentable over the teachings of Foster, in view of teachings from Derderian.

Claims 11, 18-23, 25, 28, 30-35, and 54 have been rejected under 35 U.S.C. § 103(a) for reciting subject matter which is purportedly unpatentable over the subject matter taught in Pu, Derderian, and Foster.

The standard for establishing and maintaining a rejection under 35 U.S.C. § 103(a) is set forth in M.P.E.P. § 706.02(j), which provides:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

With respect to rejections under 35 U.S.C. § 103(a) that are based upon references which qualify as prior art under 35 U.S.C. § 102(e), 35 U.S.C. § 103(c) provides:

Subject matter developed by another person, which qualifies as prior art only under one or more of subsections (e), (f), and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

M.P.E.P. § 706.02(l)(1) indicates that 35 U.S.C. 103(c) applies to all applications which have filing or priority dates of November 29, 1999, or later:

This change to 35 U.S.C. 103(c) applies to all utility, design and plant patent applications filed on or after November 29, 1999, including continuing applications filed under 37 CFR 1.53(b), continued prosecution applications filed under 37 CFR 1.53(d), and reissues.

M.P.E.P. § 706.02(l)(3) explains that the evidentiary burden of the requirement that the subject matter and claimed invention be, "at the time the invention was made, owned by the same

person or subject to an obligation of assignment to the same person” is met merely by a statement to that effect:

Applications and patents will be considered to be owned by, or subject to an obligation of assignment to, the same person, at the time the invention was made, if the applicant(s) or an attorney or agent of record makes a statement to the effect that the application and the reference were, at the time the invention was made, owned by, or subject to an obligation of assignment to, the same person(s) or organization(s).

*See also* M.P.E.P. § 706.02(1)(2).

As the Office has not demonstrated that the subject matter disclosed in Derderian was published before the filing date of the above-referenced application, and since the subject matter disclosed in Derderian is not an invention “by another” (James M. Derderian is named as the sole inventor of both Derderian and the above-referenced application), Derderian does not qualify as prior art to the above-referenced application under any subsection of 35 U.S.C. § 102.

Even assuming, for the sake of argument, that Derderian could be considered to be prior art to the above-referenced application, it could only qualify as such under 35 U.S.C. § 102(e) because it was not published until after the August 24, 2001, filing date of the above-referenced application. As the above-referenced application was filed after November 29, 1999, it may benefit from the provisions of 35 U.S.C. § 103(c).

At the time the invention disclosed in the above-referenced application was made, it was owned by or subject to an obligation of assignment to Micron Technology, Inc., as evidenced by the assignment recorded at Reel No. 012121, Frame No. 0051. Micron Technology, Inc. is the same party to which Derderian had already been assigned, as indicated by the assignment recorded at Reel No. 012120, Frame No. 0618.

Accordingly, Derderian may not be relied upon in a rejection of any of the claims of the above-referenced application under 35 U.S.C. § 103(a).

Therefore, withdrawal of the 35 U.S.C. § 103(a) rejections of claims 1, 3-8, 10-23, 25, 28, 30-35, 53, and 54 is respectfully requested.

**Election of Species Requirement**

It is respectfully submitted that independent claim 1 remains generic to both of the species of invention that were identified in the Election of Species Requirement in the above-referenced application. In view of the allowability of this claim, claims 9, 24, and 29, which have been withdrawn from consideration, should also be considered and allowed. M.P.E.P. § 806.04(d).

**CONCLUSION**

It is respectfully submitted that each of claims 1, 3-24, 27-35, 53, and 54 is allowable. An early notice of the allowability of each of these claims is respectfully solicited, as is an indication that the above-referenced application has been passed for issuance. If any issues preventing allowance of the above-referenced application remain which might be resolved by way of a telephone conference, the Office is kindly invited to contact the undersigned attorney.

Respectfully submitted,



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